

Listing of Claims:

1. (Previously Presented) A light emitting diode arrangement, comprising:
a flexible circuit board comprising electrical conductor tracks and a thermally conductive layer, and
at least one high power light emitting diode mounted onto said flexible circuit board and in thermal contact with the thermally conductive layer,
wherein the thermally conductive layer and the electrical conductor tracks are positioned in a same plane of the flexible circuit board, and
wherein the thermally conductive layer occupies at least 60 % of an area of said same plane.
2. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the high power light emitting diode has a power consumption of at least 300 mW.
3. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the high power light emitting diode is soldered onto the flexible circuit board.
4. (Previously Presented) The light emitting diode arrangement as claimed in claim 3, in which the flexible circuit board contains at least one flexible carrier layer.
5. (Previously Presented) The light emitting diode arrangement as claimed in claim 4, in which the flexible carrier layer contains at least one of the following materials: polyimide, polyethylene naphthalate, polyester, FR4.

6. (Cancelled)

7. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the thermally conductive layer contains a metal.

8. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the thermally conductive layer contains copper.

9. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the at least one high power light emitting diode is soldered onto the thermally conductive layer.

10. (Cancelled)

11. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the thermally conductive layer and the electrical conductor tracks contain the same metal.

12. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which an insulating layer is applied to one of the surfaces of the flexible circuit board.

13. (Previously Presented) The light emitting diode arrangement as claimed in claim 12, in which the insulating layer has cutouts for making electrical and thermal contact with the high power light emitting diode.

14. (Previously Presented) The light emitting diode arrangement as claimed in claim 12, in which the insulating layer contains a soldering resist.

15. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which that side of the flexible circuit board which is remote from the at least one high power light emitting diode has an adhesive-containing layer.

16. (Previously Presented) The light emitting diode arrangement as claimed in claim 15, in which the adhesive-containing layer is formed by a double sided adhesive tape.

17. (Previously Presented) The light emitting diode arrangement as claimed in claim 15, in which the adhesive-containing layer is heat-resistant up to temperatures of 250°C.

18. (Previously Presented) The light emitting diode arrangement as claimed in claim 15, in which the adhesive-containing layer has a thickness of at most 60 μm .

19. (Previously Presented) The light emitting diode arrangement as claimed in claim 15, in which the adhesive-containing layer is covered with a protective film.

20. (Previously Presented) The light emitting diode arrangement as claimed in claim 19, in which the protective film contains a plastic.

21. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which a multiplicity of high power light emitting diodes are provided, which diodes are connected in series.

22. (Previously Presented) The light emitting diode arrangement as claimed in claim 21, in which a pair of contact areas is provided for each high power light emitting diode.

23. (Previously Presented) The light emitting diode arrangement as claimed in claim 22, which has sections, each section having a high power light emitting diode and the associated pair of contact areas.

24. (Previously Presented) The light emitting diode arrangement as claimed in claim 23, in which the sections are arranged as repeating structures.

25. (Previously Presented) The light emitting diode arrangement as claimed in claim 24, in which the sections are arranged in a series.

26. (Withdrawn) An illumination device, having a light emitting diode arrangement as claimed in claim 1, and a heat sink on which the light emitting diode arrangement is applied.

27. (Withdrawn) The illumination device as claimed in claim 26, in which the light emitting diode arrangement is adhesively bonded onto the heat sink.

28. (Withdrawn) The illumination device as claimed in claim 26, in which the heat sink contains a metal.

29. (Withdrawn) The illumination device as claimed in claim 26, in which the heat sink is part of a lamp housing.

30. (Withdrawn) The illumination device as claimed in claim 29, in which the lamp housing is the housing for one of the following lamps: automobile interior illumination, automobile rear illumination, brake light, flashing indicator.

31. (Withdrawn) A method for producing a light emitting diode arrangement, wherein firstly an adhesive-containing layer is applied to a flexible circuit board and then light emitting diodes are soldered onto that side of the flexible circuit board which is remote from the adhesive-containing layer.

32. (Previously Presented) The light emitting diode arrangement as claimed in claim 1, in which the thermally conductive layer has an essentially round form.

33. (New) The light emitting diode arrangement as claimed in claim 1, wherein the thermally conductive layer has at least one recess or concave region which partially surrounds at least one of the electrical conductor tracks.

34. (New) The light emitting diode arrangement as claimed in claim 1, wherein the thermally conductive layer is free of a region which is in the form of a stripe or rectangle.

35. (New) The light emitting diode arrangement as claimed in claim 1, further comprising at least one additional thermally conductive layer separated from the thermally conductive layer, wherein each of the thermally conductive layer and the additional thermally conductive layer is connected to a different single light-emitting diode.

36. (New) A light emitting diode arrangement, comprising:
a flexible circuit board comprising electrical conductor tracks and a thermally conductive layer, and

at least one high power light emitting diode mounted onto said flexible circuit board and in thermal contact with the thermally conductive layer,

wherein the thermally conductive layer and the electrical conductor tracks are positioned in a same plane of the flexible circuit board,

wherein the thermally conductive layer occupies at least 60 % of an area of said same plane, and

wherein the thermally conductive layer has an essentially round form